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*Building a New Vision for the  
Metropolitan Water District of  
Southern California: Options  
for Key Policy Decisions*

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## **PREFACE**

The Metropolitan Water District of Southern California (MWD) is currently reevaluating its vision for its role in the Southern California water industry. This vision is about how water is priced and allocated in Southern California. It is about the set of policies and programs that determine infrastructure investments and how they are paid for. And, perhaps most fundamentally, it is about the division of responsibilities between MWD and the private and other public agencies involved in importing, storing, treating and distributing water in Southern California.

This paper identifies the key issues that such a vision must address and explores a range of policy options for each. Its goal is to help the MWD board and other stakeholders more effectively develop, discuss, and evaluate alternative visions. The analysis draws on over 100 in-person and telephone interviews with a broad range of individuals and organizations. The perspectives represented include MWD directors, MWD staff, staff of MWD member agencies, agriculture, private water suppliers, environmental groups, the financial and business community, California legislators, state and federal agencies involved in water issues, and water policy experts. The interviews were conducted between July and September 1998 by staff from RAND, PricewaterhouseCoopers, Bookman-Edmonston Engineering, Psomas, and The Solis Group. This work is funded by MWD.

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## SUMMARY

### S.1 OVERVIEW

The Metropolitan Water District of Southern California (MWD) is reevaluating its vision, mission, and guiding principles. MWD's decision to reassess its vision derives both from problems within the "MWD family"—MWD and its 27 member agencies—as well as from changes in the business, legal, and political environment in which Southern California's water industry operates.

This paper attempts to identify and explore the key issues that underpin a vision for MWD. As such, it attempts to break down a very complex process—that of formulating and evaluating a vision—into smaller pieces. Every vision, either implicitly or explicitly, address each of these issues. Decisions on each of these issues in effect drive the vision. One can think of a vision as the product of a coherent set of decisions that address each of these issues.

Our goal here is first to identify the key issues. An important part of the visioning process is agreement on what issues the vision should address. We also hope that identifying these issues will provide a useful framework for characterizing and evaluating different visions. Second, our goal is to provide a general understanding of the range of possible policies for each issue and their principle implications. We hope this general understanding will help the MWD board and other stakeholders better develop, discuss, and evaluate visions. We also hope that characterizing the range of possibilities will encourage people to consider options outside the current range of practices—to "think out of the box."

We identify six main issues areas and then identify key issues in each. For each issue, we stake out the endpoints of the spectrum of policy options. In some cases we identify interior points—policies that fall between the policies at either end of the spectrum. For the various policies identified, we highlight the principle implications, advantages, and disadvantages.

In the remainder of this summary we list the issues examined in each area and range of policy options examined.

## **S.2 SOCIETAL RESPONSIBILITY FOR WATER SUPPLY**

1. What level of government should bear the responsibility that basic water supplies are available to all citizens?  
*local agency—regional agency—state agency.*
2. How should resource endowments and investments be shared during shortages?  
*all benefits to local owner or investor—regional sharing of benefits.*

## **S.3 DIVISION OF RESPONSIBILITY BETWEEN REGIONAL AND LOCAL AGENCIES**

1. To what extent should operation of resources in the region be coordinated?  
*local control—local control with regional incentives—regional coordination*
2. Who should plan and build infrastructure to import water into and store water in Southern California?  
*local agencies—both local and regional agencies—regional agency*
3. Who should obtain rights to import additional water into the region?  
*local agencies—both local and regional agencies—regional agency*
4. Who should be the advocate for Southern California water interests?  
*local agencies—both local and regional agencies—regional agency*

## **S.4 ROLE OF THE MARKET**

1. How should the regional water supply be allocated among local agencies in Southern California?  
*political process—regulated market—unfettered market*
2. How should the regional aqueduct capacity as well as storage capacity be allocated among local agencies in Southern California?  
*political process—regulated market—unfettered market*
3. How should water be allocated among regions and uses in California?  
*political process—regulated market—unfettered market*

## **S.5 PRODUCT AND PRICING PHILOSOPHY**

1. How should revenue of the regional agency be split between fixed charges and charges per unit of water sold?  
*Bulk from fixed charges—bulk from commodity charges*
2. Should all types of users pay the same per unit for water of the same reliability and quality?  
*single rate for all users—rates depend on type of use*

3. How should the regional water agency package reliability in its product slate?  
*Regional but non-binding policy—different classes of cost and reliability—binding contracts that specify cost and reliability*
4. To what extent should the regional agency separately price and sell its services?  
*one bundled package—partial bundling—all products sold and priced separately*
5. What costs should be covered in the wheeling rate?  
*Incremental costs of wheeling services—incremental costs and fixed costs of aqueduct reach—incremental costs and fixed costs of entire system*
6. How should new regional infrastructure be funded?  
*cost recovered through commodity charges—up-front commitments to cover full costs*

## **S.6 ROLE OF PUBLIC AND PRIVATE SECTORS**

1. Should the private sector or the public sector own the regional water delivery infrastructure and/or develop new infrastructure?  
*private sector—private management of publicly-owned facilities—public sector*
2. How much of regional water supply activities should be outsourced?  
*aggressive outsourcing—outsource non-core competencies—keep most functions in-house*
3. Should a public agency raise funds by selling technologies and expertise developed to serve member agencies?  
*establish profit-making subsidiaries—ancillary use of property—do not sell expertise developed at public expense*

## **S.7 GOVERNANCE OF THE REGIONAL WATER AGENCY**

1. Where in the hierarchy of political organizations should the regional water agency sit?  
*local—regional—state*
2. Who should sit on the board of the regional agency?  
*final users—retail agencies—wholesale agencies—water suppliers*
3. What should be the source of leadership within the regional agency?  
*staff driven—board driven*
4. How should votes be weighted?  
*various options*

## **1. INTRODUCTION**

The Metropolitan Water District of Southern California (MWD) is reevaluating its vision, mission, and guiding principles. This paper attempts to identify and explore key issues that underpin a vision for MWD. In this section, we identify several key factors that have led MWD to reevaluate its vision, mission, and guiding principles now and the key steps in that process. We then elaborate on the purpose and goals of this paper, our approach for achieving these goals, and the organization of the remaining sections.

### **1.1 WHY REASSESS THE VISION NOW?**

MWD's decision to reassess its vision derives both from problems within the "MWD family"—MWD and its 27 member agencies—as well as from changes in the business, legal, and political environment in which Southern California's water industry operates.

Over the last 10 or 15 years, MWD has expanded the functions it performs and the services it offers. It has increasingly become a regional resource manager that attempts to coordinate imported and local supplies across the region with an expanding set of tools. At the same time, population and economic activity have continued to grow in the region and their distribution throughout the region have continued to change. Some member agencies are dissatisfied with MWD policies and programs in light of these changing conditions and are unhappy with how MWD has crafted and implemented the programs for carrying out its expanded regional role. There have been increasingly strident disagreements between member agencies on

- the allocation of MWD costs. This focuses on the split between fixed and variable revenue and the allocation of costs across geographic regions and new and old users.
- the allocation of water. The debate focuses on MWD's drought allocation policies.
- the new programs and services offered by MWD. The amount and distribution of reclamation subsidies across the region is one example.
- infrastructure investment decisions and the consequent increase in water rates.
- the appropriate division of responsibility between MWD and the member agencies. In particular, there is contention over whether member agencies should take the lead in securing new sources of imported water.

The result has been a significant fracturing of the MWD family. Some agencies have gone around MWD to secure their own sources of imported water. Some are lobbying for changes in the organization's policies in Sacramento. There are increasingly disjoint views of what MWD should be doing and where it should be going.

Two important changes in the business, legal, and political environment in which the Southern California water agency operate drive the need for MWD to reevaluate its vision, mission, and guiding principles. First, there has been increasing focus on market-based water transfers between agricultural and urban water users and demand-side management as the way to satisfy growing urban demands. No longer are large infrastructure projects seen as the primary source of new supplies. This change raises a fundamental question: Is the current set of institutional structures and policies in the Southern California water industry (the structure within which MWD has designed, built, and operated large infrastructure projects so well) the best one for this new environment?

Second, deregulation in the electric and gas sectors as well as the increasing interest of the private sector in the water industry have created pressure to increase the role of the market and to open up the water industry to the private sector. European firms experienced with privatization in Europe are looking for new markets in the United States, and there is an increasing sense among firms both in the U.S. and abroad that there are real business opportunities in the U.S. water industry. There are also strong elements of the policy, business, and academic sectors who believe that heavier reliance on the market would improve the performance of the system.

These conflicts within the MWD family and the changes in its operating environment strongly suggest that it is time for the Southern California water industry to reevaluate its institutions and policies, including the appropriate role for MWD. Such a reassessment would result in a vision of how the industry should be structured and MWD's role in it, a mission for MWD that is consistent with the vision, and a set of guiding principles that guide decisions made in carrying out this mission.

## **1.2 STAGES OF THE VISIONING PROCESS**

The visioning process has four important elements.

1. **Situation Analysis.** This identifies problems with the current situation and trends and scenarios for the future. It asks "where are we now and what can happen?"



2. Identification of core competencies. Here, the skills, capabilities, assets that the agency can bring to bear on the situation are identified: "what do we bring to the table?"
3. Identification of Goals. These goals are used to evaluate alternative visions.
4. Development and evaluation of alternative visions. Options for the role of MWD in the Southern California water industry are developed and evaluated against the goals.

### **1.3 PURPOSE OF THIS PAPER**

This paper contributes to the fourth step of the visioning process. It attempts to identify and explore the key issues that underpin a vision for MWD. As such, it attempts to break down a very complex process—that of formulating and evaluating a vision—into smaller pieces. Every vision, either implicitly or explicitly, address each these issues. Decisions on each of these issues in effect drive the vision. One can think of a vision as the product of a coherent set of decisions that address each of these issues.

Our goal is first to identify the key issues. An important part of the visioning process is agreement on what issues the vision should address. We also hope that identifying these issues will provide a useful framework for characterizing and evaluating different visions. Second, our goal is to provide a general understanding of the range of possible policies for each issue and their principle implications. We hope this general understanding will help the MWD board and other stakeholders better develop, discuss, and evaluate visions. We also hope that characterizing the range of possibilities will encourage people to consider options outside the current range of practices--to "think out of the box."

Below is our first stab at identifying the key issues and the range of possibilities for each. We expect issues and possibilities to be added, deleted, or modified as the visioning process proceeds.

### **1.4 APPROACH**

We identify several main issues areas and then identify key issues in each. For each issue, we stake out the endpoints of the spectrum of policy options. In some cases we identify interior points—policies that fall between the policies at either end of the spectrum. For the various policies identified, we highlight the principle implications, advantages, and disadvantages. In some cases these include how decisions on one issue may conflict with decisions on another issue. In describing the options, we do not mention MWD by name because we want to abstract from the details of the current situation. We conclude the

discussion of each issue by describing where on the spectrum of possibilities current practices fall.

### **1.5 ORGANIZATION**

We explore 21 different issues in six different issues areas. The areas addressed are

- Societal responsibility for water supply
- Division of responsibility between regional and local agencies
- Role of the market
- Product and pricing philosophy
- Role of the public and private sectors
- Governance of the regional water agency

## 2. SOCIETAL RESPONSIBILITY FOR WATER SUPPLY

The division of responsibility between local and regional water agencies and between the public and private sectors are fundamental issues in examining different visions for the institutions and policies of the Southern California water industry and MWD's role in it. Underlying these issues, however, are questions about what society's responsibility should be for providing water. Water is an essential to both personal and public health as well as to the functioning of the Southern California economy on which the well-being of the population depends. What societal role do these special characteristics warrant? Identifying society's responsibility is important because it constrains the sensible division of responsibility between different levels of government and between the public and private sectors. The level of government that is ultimately responsible for water availability will bear the costs of stepping in if some part of the system fails, and thus should have a role in the design and operation of that part of the system which deals with the outcomes for which it is ultimately responsible.

This sections examines two aspects of society's responsibility for providing a water supply: (1) what level government should bear the ultimate responsibility for ensuring basic water service, and (2) how should resources in the region be shared during periods of shortage.

### 2.1 LOCUS OF RESPONSIBILITY FOR BASIC LEVEL OF WATER SUPPLY

*What Level of Government Should Bear the Responsibility That Basic Water Supplies Are Available To All Citizens?*

*local agency*

*regional agency*

*state agency*

What level of government should be responsible for ensuring, particularly during drought, that all citizens have a basic supply of good-quality water? This basic supply includes not only water necessary for personal and public health, but water needed to sustain the economic activity on which general welfare depends. At one end of the spectrum of possibilities, the local, retail water agency would bear all the responsibility. At the other

end, the responsibility would lie with state government.<sup>1</sup> Options in the middle include vesting responsibility with regional government or sharing responsibility between local and regional governments, with, for example, the local agency having primary responsibility and the regional agency providing backup supplies.

Regional or state responsibility would probably better protect citizens in localities where local water resources, the financial resources needed to acquire water, or planning capabilities are limited. On the other hand, giving full responsibility to a regional agency, may reduce the incentives of local agencies to plan and invest in water supplies and infrastructure. A local agency may underinvest scarce resources in water security if it knows that the regional agency will come to the rescue in times of shortage.

We must consider whether it is even possible to leave full responsibility for assuring basic levels of water supply to local agencies. No matter what the policy may be, society may not let local areas disproportionately suffer in times of drought. Responsibilities should be assigned acknowledging any such reality.

**Current Situation.** In the Laguna Declaration MWD established itself as the agency responsible for ensuring adequate water supplies.<sup>2</sup> In times of drought, MWD has adopted policies that attempt to ensure minimum levels of supply to at least residential, commercial and industrial, and government users. As an illustration, the preferential rights system, which could result in very disproportionate cutbacks of MWD supplies across member agencies, has never been invoked. Rather, cutbacks have been proportional to past usage of MWD supplies.

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<sup>1</sup>Also, it is possible that water supply would not concern of any level of government. But given public health and general welfare concerns, we do not consider this possibility.

<sup>2</sup> "The District is prepared, with its existing governmental powers and its present and projected distribution facilities, to provide its service area with adequate supplies of water to meet expanding and increasing needs in the years head" (Section 4202 MWD Code).

## 2.2 SHARING OF RESOURCES AND INVESTMENTS DURING SHORTAGES

### *How Should Resource Endowments and Investments Be Shared During Shortages?*

*all benefits to  
local owner or  
investor*

*regional sharing  
of benefits*

This dimension addresses how resource endowments around the region, such as groundwater basins or surface supplies, and past investments, such as the Los Angeles aqueduct, should be shared during shortages. At one end of the spectrum of possibilities, all benefits from local resource endowments and local investments would accrue to the individual agency. At the other, all such resources would be shared across the region so that all users would be similarly affected by water supply shortages.

Regional sharing of all resources and investments would mean that some areas would not fare better than others simply because they were lucky enough to have, for example, good groundwater basins or because they had invested heavily in water supply infrastructure. The fortunes of everyone in the region would rise and fall together. Regional sharing would probably dampen local incentives to invest and would also tend to offset economic gains from the concentration of water-intensive activities in areas with a comparative water resource advantage.

In addition to maximizing incentives for local investment, a policy that enables local agencies to accrue benefits would, in turn, make it possible for them to invest in accordance with local preferences. Regions that want to aggressively promote economic growth can invest in and benefit from their own supplies and infrastructure. Nonetheless, a similar concern arises about local accrual of benefits as about local responsibility for ensuring basic water supplies: Would society allow local areas to prosper or wither according to their water strategies?

**Current Situation.** Currently, local resources and investments are not shared across the region. During the last drought, MWD cut back deliveries in proportion to historic MWD use, not so that cutbacks to final consumers were equalized across the region. This approach meant that the impact of the MWD cutbacks were much more severe on those agencies that took larger percentages of their total water supply from MWD. At the moment, MWD is developing a new drought management policy—one version of which takes local water resources into account when allocating supplies.

### 3. DIVISION OF RESPONSIBILITY BETWEEN REGIONAL AND LOCAL AGENCIES

There is a great deal of disagreement in Southern California on what is the appropriate division of responsibilities between MWD and local agencies. For example, some people argue that MWD should be the sole agency that imports additional water into the region. Others argue that local agencies should also have this option.

This disagreement stems from concerns that MWD does not well represent the interests of some local agencies and that MWD has adopted policies and programs that some local agencies think they could do better. Some local agencies also have a strong desire to control their own destiny—even if it is not clear at the moment how this destiny differs from that of MWD.

Decisions on how responsibilities are divided between regional and local agencies are a key driver of any vision for MWD. In this section we examine several issues that underpin these decisions. First, we examine the extent to which operations and resources in the region should be coordinated. Second, we examine the division of responsibility for importing water into the region. We examine two aspects of this issue: who should plan and build infrastructure and who should be responsible for obtaining rights to additional water to import into the region. Finally, we examine the division of responsibility for advocating Southern California water interests outside the region.

#### 3.1 EXTENT OF REGIONAL RESOURCE COORDINATION

*To What Extent Should Operation of Resources in the Region be Coordinated?*

*local control*

*local control with  
regional incentives*

*regional  
coordination*

Southern California's water system includes a complex set of groundwater basins, local surface supplies, storage reservoirs, treatment plants, and distribution systems. To what extent should operation of the system be regionally coordinated? At one extreme, local resources would be operated by local agencies with little concern for how their operations are coordinated with those of other agencies to improve performance of the overall system. At the other, there would be full regional coordination of the system. Somewhere between

lies local control moderated by regionally-determined incentives which promote regional goals.

Regional coordination offers the gains to be made from optimizing the overall system, so the size of these potential gains determines the desirability of such coordination.<sup>3</sup> Under regional coordination, water produced by individual facilities may not necessarily stay in the local area and the costs of operating a particular facility may not be easily allocated to individual users. Regional coordination means that local agencies would not have control over their local resources, and it means that activities that may not be in the narrow economic interest of the local agency—such as reclamation or conservation programs or investments in new technologies—may be pursued.

In contrast, local control allows the more direct pursuit of local interests which may be particularly important if local objectives are quite different from regional ones. For example, an agency may want to keep its groundwater basins full as insurance against drought even though it may not be in the regional interest to do so. Local control also preserves the incentives of local agencies to build projects since they can be operated with maximum benefit to the local agency.

When local control is combined with regional incentives, local agencies still pursue their own interests, but those interests have been modified by the regional incentives. This approach may only be partially successful in achieving full regional coordination (the required incentives may be prohibitively expensive or difficult to administer), but even partial success may be good enough.

**Current Situation.** Over the last 10 years or so, MWD has gradually moved from an agency that sees its role as being the “manager of imported water” to being the “manager of all the water”. This expanding scope is reflected in MWD’s integrated resources planning process. MWD has sought to further regional coordination through incentives and information, leaving control of local resources in local hands. One factor that prompted this transition is MWD’s ease in raising revenue relative to local agencies that are constrained by Proposition 13 and political factors.

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<sup>3</sup>We have not reviewed studies that quantify such gains, but MWD staff and others we have interviewed by and large felt that such gains are significant in the MWD service area.

### 3.2 RESPONSIBILITY FOR IMPORTING WATER INTO THE REGION

#### *A. Who Should Plan and Build Infrastructure To Import Water Into and Store Water In Southern California?*

*local agencies*

*both local and  
regional agencies*

*regional agency*

At one end of the spectrum of possibilities, local agencies would plan, finance, and build the infrastructure needed to import water into their areas. At the other, the regional agency would take on these responsibilities.

Regional responsibility for building importation infrastructure allows local agencies to pool resources and undertake projects that would be beyond the capability of individual agencies. It allows economies of scale in building projects (as opposed to perhaps myriad smaller, similar local projects) and promotes planning for the orderly and economically efficient development of Southern California water resources.

Local control may lead to projects that are not in the best interests of the region, but on the other hand, avoids situations where the regional agency pursues an agenda divorced from the interests of the local agencies. Local control also complicates, and perhaps compromises, MWD ability to "manage all the water".

**Current Situation.** Both MWD and local agencies plan and build infrastructure to import water into the area. The obvious example is the LA aqueduct, but there are others, including the infrastructure needed to import water into Orange County via the Santa Ana River. The MWD Board, composed of representatives from local agencies, must approve MWD projects, but because the weighted voting scheme is not proportional to payments for infrastructure through water rates and because member agencies do not have to commit to finance projects up front (see Section 5.6 below), these decisions may only partially reflect the preferences of local agencies.



*B. Who Should Obtain Rights to Import Additional Water Into the Region?*

*local agencies*

*both local and  
regional agencies*

*regional agency*

This dimension addresses the division of responsibilities between local and regional agencies for obtaining rights to import additional water into the region. The most likely example is negotiation of water transfers from agricultural users.

Regional control would avoid the possibility that competition among local agencies will drive up the cost of obtaining new supplies for the region. It also would avoid the costs of each agency's maintaining staff with expertise to negotiate transfers.

Local responsibility would allow agencies to more directly tailor their water supply to meet local needs. A plethora of buyers might be more likely to develop innovative water sources and pricing and contracting mechanisms than initiative from a single source. Some agencies might not have the resources or the expertise to negotiate water transfers, however. The result might be major differences in the reliability and costs of water across the region. As with local responsibility for planning and building infrastructure, local responsibility for obtaining water supplies might undermine efforts at regional management of Southern California's water supply system.

Local responsibility for acquiring water supplies when the importation infrastructure is regionally controlled requires a wheeling policy, which we discuss below.

**Current Situation.** The Laguna Declaration envisions MWD as the agency that obtains the additional supplies needed for the region. This would certainly seem to apply to water transfers. The San Diego's initiatives, however, run counter to this vision. Other agencies are considering similar initiatives, although perhaps not on such a major scale. MWD itself continues to negotiate transfers and otherwise secure rights to water, so now Southern California has a system where both local agencies and the regional agency are seeking incremental supplies.

### 3.3 RESPONSIBILITY FOR ADVOCATING SOUTHERN CALIFORNIA WATER INTERESTS

*Who Should Be the Advocate for Southern California Water Interests?*

*local agencies*

*both local and  
regional agencies*

*regional agency*

Many issues affecting Southern California's water supply arise at the state and federal levels. Southern California benefits if its interests are represented in the debates over these issues. But what is the best way to represent Southern California in these arenas? Here we explore where responsibility for representing Southern California should lie.

At one end of the spectrum, local agencies play this role. Local agencies may have stronger ties to local representatives than a regional agency and can help to marshal support across a wide range of legislators. Downsides of this option are that local agencies may not have sufficient resources or a sufficiently broad regional perspective to effectively take on this responsibility. Yet full responsibility at the regional level raises concerns that regional agency will take positions inconsistent with those of at least some of the local agencies.

**Current Situation.** In the past MWD has been an effective advocate for Southern California water interests. This effectiveness has declined in recent years for a number of reasons. First, differences among MWD member agencies mean that it is difficult to identify a regional position and MWD positions may be countered by those of dissenting member agencies. Second, MWD has not developed a real constituency among residential and business users in the region that could buttress its efforts. Finally, MWD has alienated several key legislators, undermining its effectiveness on policy issues. As a consequence, member agencies and other local agencies taken on a greater role in advocating their own and the region's interests. We thus now have a system where both regional and local agencies are advocates for Southern California water interests.

#### 4. ROLE OF THE MARKET

There is a great deal of dissatisfaction about how water is allocated in California. Urban areas are dissatisfied with the distribution between urban and agricultural uses. There is also dissatisfaction within Southern California about how our frequently scarce supplies are allocated within the region. Allocation policies that may have made sense years ago when the balance between urban and agricultural uses and when distribution of population and economic activity within Southern California were much different are no longer appropriate.

Development of water markets have been suggested by many as a way to redistribute water supplies in California and the West more generally. This has initiated a vigorous debate on whether water should be treated more like a commodity that can be bought and sold or whether its particular characteristics demand that it be treated as a public resource that should be allocated by government policy. Decisions on what role the market should play will make important difference on what type of visions make sense for MWD.

We examine the issue of whether water should be treated more as a commodity or as a public resource by examining three different allocation issues: (1) the allocation of water among local water agencies in Southern California, (2) the allocation of aqueduct capacity among local agencies in Southern California, and (3) the allocation of water across regions and types of users in California and the West.

##### 4.1 ALLOCATION OF WATER AMONG MEMBER AGENCIES

*How Should the Regional Water Supply Be Allocated Among Local Agencies in Southern California?*

*political process*

*regulated market*

*unfettered market*

At one extreme, the market would have no role in the allocation of a regional water supply across the local agencies in the region. Allocation would be determined through a political process. For example, the regional would allocate water according to a drought management plan that had been agreed to in negotiations with local agencies. Local agencies would not then trade water among themselves outside this political process. At the other extreme, once baseline allocations are made, a market for water would be allowed

among the local agencies. In this unfettered market, the price at which water is traded and the amounts bought and sold would be left to the market. An unfettered market can be contrasted with a regulated market that would ensure, for example, that a minimum amount of water at reasonable cost is available to all agencies lies somewhere in between.

Once the baseline allocations have been determined, the unfettered market substitutes for any kind of regional policy for water allocation. Regional drought management policies become unnecessary because the market will allocate water among the different agencies. The market will move water to the highest value uses, promoting economic efficiency.

An unfettered market allocation of water among the local agencies presents potential downsides as well. First, determining the baseline allocation for each of the local agencies will almost certainly be a contentious, costly process. Second, markets may lead to uneven distributions of water across users. For example, wealthy areas may be willing to pay high prices to buy water from other areas during drought and avoid conservation requirements. The result in areas that sell water may be brown lawns and strict conservation programs, but presumably the selling agency would be adequately compensated (it would have agreed to the deal). Such trades move water to the highest value use, but may not be satisfying to those who think that all citizens should make sacrifices in times of shortages or that there should be a single postage-stamp rate for regional water. They also raise potentially contentious questions about how the proceeds from the sale are distributed in the selling region.

Political allocation of water can avoid the unevenness of a market allocation. But it produces outcomes that are far from economically efficient—and it is contentious and costly to develop an allocation scheme.

A regulated market can take advantage of market forces, but step in to ensure that socially undesirable allocations are avoided. Of course, the costs of formulating these regulations and overseeing the market must be considered.

**Current Situation.** A political process is currently allocates imported water to MWD's member agencies. The Metropolitan Water District Act (originally passed by the California State Legislature in 1927) directs MWD to allocate water using the preferential rights system. Technically this system is still legally binding, but it has not been used. Instead the Board has adopted various drought management plans to allocate water during shortages. MWD and its member agencies are currently revising the plan.

## 4.2 ALLOCATION OF AQUEDUCT CAPACITY

*How Should the Regional Aqueduct Capacity As Well as Storage Capacity  
Be Allocated Among Local Agencies in Southern California?*

*political process*

*regulated market*

*unfettered market*

In the previous section we implicitly assumed that a regional agency would determine the total amount of water imported into the region, and then examined how a market mechanism might allocate it among local agencies. We now turn to a more radical role for the market in the Southern California water industry: its potential role for allocating aqueduct and storage capacity in the region when local agencies are responsible for determining the amount of water imported into the region. In an unfettered market, local agencies might contract with the regional agency for aqueduct capacity, which constrains the total amount of water that can be imported. Agencies could then trade this dedicated capacity among themselves as necessary. The regional agency could set rates to cover the costs of maintaining and operating the aqueduct and storage facilities. In a political allocation of aqueduct capacity, the regional agency would allocate capacity, presumably in proportion to the politically determined allocations of water to each of the local agencies.

Contracts for aqueduct and storage capacity would allow local agencies flexibility to go out and find supplemental sources of water and import them into the region. This would allow member agencies to tailor water supplies to their own preferences for reliability and cost. For such a system work, investments of local agencies in the current aqueduct and storage system would have to be cashed out (or somehow reflected in the terms offered to each agency), an undoubtedly contentious, time consuming, and costly process. Allowing the market to allocate transmission and storage capacity would presumably change how decisions to build new infrastructure are made. New facilities might only be funded once contracts to cover their costs were in place. This would ensure that decisions to build new regional infrastructure reflect real willingness of consumers in the region to bear the costs.

Unfettered markets for transmission capacity would effectively place the responsibility for planning for local needs in the hands of the local agencies and the role of regional planning would be limited.

A regulated market might contain assurances that emergency capacity and storage available to agencies should their planning and contracting prove grossly inadequate.

**Current Situation.** MWD controls aqueduct and storage capacity and implicitly allocates it in proportion to allocation of water across member agencies.<sup>4</sup> Because a political process allocates water among member agencies (see discussion in previous section), aqueduct and storage are allocated through political processes as well.

#### 4.3 ALLOCATION OF WATER ACROSS REGIONS

##### *How Should Water Be Allocated Among Regions and Uses in California?*

*political process*

*regulated market*

*unfettered market*

The Southern California water industry has no direct power to structure the system that allocates water to agricultural, environmental, and urban uses in California. However, it can advocate changes in current institutions and adopt operating policies that encourage the system to move in one direction or another. Thus consideration of various options for these institutions and policies is germane.

At one extreme, water would be allocated among uses by political and legal processes. Changes in allocations would require administrative and legal redefinition of current uses. For example, a certain agricultural water use practice might be officially designated as "unreasonable" and then reallocated to another user. At the other end of the spectrum users would be able to buy and sell their water rights, and the water would be allocated to different uses through the market.

The primary problem with political/legal procedures for allocating rights is its very limited ability to respond to changing water demands. Water rights assigned long ago become increasingly inappropriate as cities grow and as the value placed on the environment changes.

Water markets may well help water flow to the highest value use, but there are several ramifications of relying on them. First, ill-defined property rights for water discourage trades because sellers are worried that their right to water may evaporate if they stop using it. Second, water purchases from agricultural regions will have some adverse effects on third-parties. The farmers or irrigation districts that sell the water will presumably be better off, but third parties to the transfer, such as farmworkers and other

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<sup>4</sup>Agencies that use storage mainly for insurance complicate the situation somewhat and need to be considered in further examination of this issue.

input suppliers (such as seed and pesticide firms) will be hurt. These effects would be compounded in dry years when allocations to agriculture have already been reduced. Finally, market transfers may mean large profits for farmers who sell water that was developed with public moneys. Such private gain from public investments raises questions of fairness, but if we want to reap the benefits of market transfers, we may have to accept such a consequence.

Regulation might offer a way to avoid some of the more negative consequences of the unfettered market. For example, transfers could be reviewed for third-party effects and conditions could be imposed on their approval. (Examples of such conditions include requiring crop shifting rather than fallowing or requiring the water transferred to be generated by conservation programs).

**Current Situation.** In California and the West more generally, water markets still play a minor role in the allocation of water between urban, agricultural, and environmental uses<sup>5</sup> However, market transfers are growing in frequency and visibility. Legislative reforms, such as the federal Central Valley Improvement Act, have attempted to facilitate them. Market transfers have been both short and long term. The 1991 Drought Water Bank purchased water from farmers in the San Joaquin Valley for one year only. The San Diego-Imperial Irrigation District deal runs for many years.

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<sup>5</sup>Water trades among agricultural users in the same general area are common.

## 5. PRODUCT AND PRICING PHILOSOPHY

MWD pricing practices lie at the heart of much of the current contention about water institutions and policies in Southern California. Claims that costs are not fairly distributed across the region grow out of the price system. High prices encourages some agencies to want to seek their own sources of water.

The price system is not only an important basis for complaints about the current system, but it is central to the way the current system operates and to the outcomes it produces. The price system creates incentives or disincentives for member agencies to develop reclaimed water or groundwater resources or to participate in conservation programs. The price system is the glue that holds a decentralized system together. Attitudes on what type of pricing is appropriate are key drivers of a vision for MWD.

In this section we examine the following product and pricing issues:

- the balance between fixed and variable revenues,
- the variation in water rates across users,
- packaging reliability,
- the bundling of products and prices,
- pricing of wheeling services, and
- funding mechanisms for new infrastructure.

Some of the issues discussed in this section are tied to particular notions of the roles of the regional and local water agencies and the relationship between them.<sup>6</sup> Consequently, some of these issues may become irrelevant once higher-level policy decisions have been made. Others are more relevant to certain visions of the Southern California water agency and MWD's role in it than others.

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<sup>6</sup>For example, decisions on how to bundle and price services will be of much less importance to a regional transmission utility than an agency with regional planning and coordination responsibilities.



## 5.1 BALANCE OF FIXED AND VARIABLE REVENUE

*How should revenue of the regional agency be split between fixed charges and charges per unit of water sold?*

*bulk of revenue from  
fixed charges*

*bulk of revenue from  
commodity charges*

At one end of the spectrum the bulk of revenues of the regional agency would come from charges that are not directly tied to water purchases. Examples include property taxes or capacity charges (charges for ability to deliver a certain amount of water during a given period). At the other end, the bulk of revenues would come from water sales.

Moving from one end of the spectrum to the other has many implications. Heavy reliance on revenue from water sales can create revenue instability if water sales drop due to shortages during drought. Loading costs on water sales increases incentives to conserve water (because of its higher price) and creates incentives for local agencies to search for cheaper sources of water. Possible strategies include developing local sources that will reduce demand from the regional agency as well as looking for alternative sources of imported water.

More heavy reliance on fixed charges allows the regional agency to charge local agencies for the insurance of having a supplemental source of water available even though the agency does not buy water on a regular basis. It also means greater revenue stability for the regional agency, improved credit ratings, and perhaps the ability to better plan for the region.

Economic theory argues that resources are best allocated when all users pay the marginal cost of water (the cost of obtaining additional units of water). Fixed charges can then be used to cover any remaining costs or to return excess revenues (above total costs) to customers. When transmission capacity and water is readily available, the incremental cost of water may be quite low. When transmission and water supplies are scarce, it may be high. Whether or not it makes sense to build a rate structure that prices at marginal cost depends on the ability to accurately calculate marginal costs, how much changing prices would affect behavior anyway, and whether there are other institutions (such as secondary markets between buyers) that could create some of the same incentives as marginal cost pricing.

**Current Situation.** In the early years of its existence, most of MWD's revenues were not tied to water sales. For many years now, however, the bulk of revenues have come from water sales.

## 5.2 VARIATION OF RATES ACROSS USERS

*Should all types of users pay the same per unit for water of the same reliability and quality?*

*single rate for  
all users*

*rates depend on  
type of use*

Water rates might be set so that all users pay the same amount for water of the same reliability and quality or, at the other extreme, so that rates vary for different types of users. Examples of varying rates include: (1) lower rates for agriculture, and (2) higher rates for areas that more recently joined the system—"new growth".

New water sources are generally more expensive than older ones, and adopting one "postage-stamp" rate to covers system costs means that the costs of users on the system will rise as new users are added. Conversely, the postage stamp rate may encourage development in the region because new users pay less than they would otherwise.

Tailoring rates to particular types of customers allows the water supplier to encourage activities that are valuable for reasons other than their narrow contribution to economic welfare. For example, some may value the aesthetics of farmland, value the diversity agriculture adds to the local economy, or be very reluctant to displace farmworkers from a way of life. If agriculture could not survive by paying the same rate as other users, a lower rate may be justified if these "extra-economic" values are sufficiently important.

**Current Situation.** MWD has long had a "postage-stamp" rate for water of the same quality and reliability. It offers lower rates for agricultural use, but this water is interruptible—that is, it is the first water to be cut back in times of shortage. There are real questions about whether agricultural users really perceive this water as interruptible. When cutbacks have been made, those in the agriculture community have protested strongly, raising the question of how readily a regional agency can enforce agreements for interruptible service.

### 5.3 PACKAGING RELIABILITY

*How should the regional water agency package reliability in its product slate?*

*regional but non-binding policy*

*different classes of cost and reliability*

*binding contracts that specify cost and reliability*

For their own planning purposes, it is very important to local agencies that they have a good idea of what they are going to be able to get from the regional agency. This includes the cost of water as well as the quantities that will be available during drought. There are a number of ways to set these expectations. At one extreme, local agencies would enter into binding contracts with the regional agency to deliver a set amount of water at set price. The amount of water to be delivered could conceivably depend on the type of water year. At the other end of the spectrum, the regional agency would establish policies on water costs and water availability, but there would be no binding obligation to meet them. In between the regional agency could offer different reliability at different prices, with its ability to sell higher reliability at higher cost dependent on the perception that it will be able to deliver.

A non-binding regional policy on reliability leaves the member agency uncertain how hard the regional agency will try to satisfy the policy, and whether there is even a common understanding of what the policy means. Non-binding regional policies are in effect enforced through the political process.

Binding contracts are only feasible to the extent that they can actually be enforced with appropriate penalties for non-compliance. Binding contracts are enforced through the courts. Smaller penalties for non-compliance would increase the unreliability of water, even under a binding contract.

Different classes of reliability, presumably at different prices, would give local agencies increased choice in assembling a water portfolio. But as mentioned in the previous section, to make this work, the regional agency will need to be able to cut lower water reliability water first during periods of shortage.

**Current Situation.** The Laguna declaration establishes a non-binding policy to supply its urban (non-agricultural) with "adequate" supplies of water. The meaning of "adequate" is vague, leaving member agencies uncertain of just how much water they will get in dry years. In its recent Integrated Rescues Plan, MWD strengthened its

commitment, the goal being "the assurance that retail-level demands can be satisfied under all foreseeable hydrologic conditions".<sup>7</sup>

#### 5.4 BUNDLING OF SERVICES

*To what extent should the regional agency separately price and sell its services?*

*one bundled  
package*

*partial bundling*

*all products sold  
and priced  
separately*

At one end of the spectrum of possibilities the regional agency would sell one package of goods at one price. Buyers would not have the option of buying individual parts of the package; the price would cover all aspects of the agency's operation. At the other end of the spectrum, each of the agencies products and services would be billed and sold separately.

Bundling products and services together allows the agency to subsidize services and projects that may be socially desirable, but which buyers would not purchase if priced at full cost. Examples of such goods and services might include conservation, public education, water quality research, and water reclamation programs.

Unbundling goods and services allows local agencies to buy the set that best meets their needs. The greater the differences among agencies, the more to be gained by allowing agencies to tailor services to their own needs. Unbundling also creates more direct feedback to the regional agency on which goods and services the member agencies do and do not want.

**Current Situation.** With the important exception of water treatment and engineering and technical services that concern specific projects at local agencies, MWD sells one bundled package of products and services. Included in the water rate are the costs of acquiring water, the costs of transmission, power, and funds to finance conservation, planning, education, reclamation, and public relations and political outreach programs.

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<sup>7</sup>*Southern California's Integrated Water Resources Plan: Executive Summary*, Metropolitan Water District of Southern California, Report Number 1107, March 1996, p. E-15.

## 5.5 WHEELING RATES

*What costs should be covered in the wheeling rate?*

*variable costs of  
wheeling services*

*variable costs and  
fixed costs of  
aqueduct reach*

*variable costs  
and fixed costs of  
entire system*

Access to and the cost of wheeling on regional transportation systems are key considerations in decisions by local agencies on whether they will secure their own sources of imported water or even trade water within the region. Thus, regional policies on access to and cost of wheeling will play a major role on the extent of such activity. The issues around wheeling arise in separately pricing any good or service that is jointly produced (and perhaps previously bundled together) with other goods and services. We focus on wheeling rather than on any of the other services described in the previous section because wheeling rates have recently been the subject of intense debate and litigation in Southern California.

At one extreme of the spectrum of possibilities, wheeling services could be priced so that they cover only the variable cost of transporting the water through the facilities. This would include power costs and charges for extra wear and tear on the aqueduct facilities. At the other extreme, a proportionate share of the fixed costs of the entire water distribution system could be included. These include operation and maintenance costs that do not vary with the amount of water delivered as well as capital costs of the system. In the middle, the wheeling rate might only cover the fixed costs of the parts of the system actually used in wheeling the water.

Charging only the variable costs of wheeling the water provides agencies with strong incentives to go out and secure their own water supplies, but it shifts fixed costs onto the other users in the system to the extent that fixed costs (including the fixed costs of the transportation facilities) are recovered through water sales. Lower water sales by the regional agency means that unit costs would have to be raised to cover fixed costs, again to the extent that fixed costs are recovered through water sales.<sup>8</sup> These higher unit prices increase incentives for the remaining agencies to secure their own supplies, threatening to create a death spiral for regional agency providing wheeling services.

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<sup>8</sup>There would be little or no need to raise the unit cost of water if most or all fixed costs are recovered by means other than water rates (e.g. property taxes or standby charges).

Including a large portion of the fixed costs of the entire system in the wheeling rate means the importing agency may have to pay for parts of the system that it did not directly utilize or want to pay for. How big of a problem this could be depends on the characteristics of the system—the issue is greatest when some agencies receive little or no benefit from certain parts of the system. Loading fixed costs of the entire system on the wheeling rate may also create a wedge between the price facing the agency and the proper economic incentives for wheeling. It should be noted, however, that a similar problem results from loading fixed costs onto water rates: a wedge may be created between the price of water and proper economic incentives for purchasing it.

Allocating only the fixed cost of the facilities used has two important implications. First, it implies that the fixed costs of the system can be allocated to particular infrastructure. The feasibility (and cost) of this needs to be explored. Second, it means that the local agencies will not be contributors and participants in one integrated system

**Current Situation:** MWD's wheeling policy is in flux. MWD does have a wheeling policy written down on paper, but court decisions may create new precedents. A recent trial court decision requires MWD to charge only the variable cost of wheeling the water. MWD is appealing that decision.

## 5.6 FUNDING STRATEGY FOR NEW INFRASTRUCTURE

*How should new regional infrastructure be funded?*

*cost recovered ex-  
post through  
commodity charges*

*up-front  
commitments to  
cover full costs*

At one end of the spectrum of possibilities, the capital costs of new infrastructure would be recovered through water sales. At the other, capital projects would not be built without up-front commitments that cover the full cost.

Cost recovery through commodity charges allows local agencies to vote for a project without a binding obligation to pay for it. If a local agency decides to develop a local source and reduces the amount of water it purchases from the regional agency, it effectively reduces the amount it ends up paying for the project. This transfers the financial risk for the project to the regional agency.

Up-front commitments mean that a local agency's endorsement of a new project must be backed up by willingness-to-pay.<sup>9</sup> The regional agency receives very good information on whether a project is actually needed, and it bears no financial risk from the project. Up-front commitment sufficient to fund the project from only a subset of local agencies raises the question of whether and how the benefits from the project can be restricted to the funding agencies.

**Current Situation.** Most of MWD's revenues come from water revenues, and agencies have no commitments on the amount of water they purchase. Since up-front commitments for a project are not required, this means that there is no binding responsibility to pay for capital projects that they vote for. The financial risk for these projects is in effect transferred through MWD to the member agencies as a whole.

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<sup>9</sup>Up front commitments could come in the of up front payments for the construction or up-front commitments to buy a certain amount of water at a given price.

## 6. ROLE OF PUBLIC AND PRIVATE SECTORS

Given a set of functions that should be performed on behalf of the region, one can ask whether these functions could be more efficiently performed by the public or the private sector. This issue has become a prominent one in the Southern California water industry for a number of reasons. First, the private sector has shown increased interest in exploring business opportunities in the water industry, and are accompanying it with political agitation on both state and local levels to make this possible. Second, deregulation and privatization in other industries have led many to ask whether an increased private role can reduce costs and bring more innovation and flexibility to California's water system.<sup>10</sup> Finally, many have questioned MWD's recent efforts to find business opportunities in the private sector.

In this section we examine three issues pertaining to the appropriate roles of the public and private sectors in the Southern California water industry: the privatization of existing infrastructure and/or private development of new infrastructure, outsourcing of services provided by public agencies, and the expansion of services sold by public agencies.

### 6.1 PRIVATIZATION OF INFRASTRUCTURE AND PRIVATE DEVELOPMENT OF NEW INFRASTRUCTURE

*Should the private sector or the public sector own the regional water delivery infrastructure and/or develop new infrastructure?*

*private sector*

*private management of  
publicly-owned facilities*

*public sector*

Privatization could potentially reduce the costs of running the regional water delivery infrastructure if the profit motive of private-sector firms creates stronger incentives to improve efficiency than the public service motive of public-sector firms. However, since the water delivery infrastructure is too expensive to duplicate, a private-sector owner would necessarily be a monopolist, and would have to be regulated to ensure that it did not raise prices to monopoly levels. The design of the regulatory rules could create incentives for the private-sector firm to either over-invest or under-invest in new infrastructure or in O&M of

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<sup>10</sup>For example, can increased private involvement somehow speed reallocation for agricultural to urban uses.



existing infrastructure. In particular, poor design of incentives under private ownership may lead to insufficient spending on maintenance of water facilities in some cases. On the other hand, public agencies or regulated utilities that have little incentive to reduce costs are sometimes accused of "gold-plating" their facilities.

Another issue raised by privatization is who would receive the revenues from the sale. Would they go to member agencies or to local or state governments, and how would they be divided among the claimants? Since the private-sector firm would have to recover the costs of buying the infrastructure through water rates, would customers have to pay again for the same infrastructure they had already paid for through water rates and property taxes?

Alternatively, the regional water infrastructure could remain in the public sector. This would avoid the thorny regulatory and financial issues surrounding privatization. However, public-sector managers may not have as strong incentives as private-managers to make cost-effective operating and investment decisions, so the region could be foregoing some potential cost savings if infrastructure remains in the public sector.

One intermediate option is retaining public ownership of facilities, but contracting out the management of the facilities to a private-sector firm. Much of the French water industry currently operates in this fashion, with municipal ownership of facilities and private-sector management. However, designing the contract to give managers the correct incentives to maintain existing facilities and to make decisions on new investment would still be a challenge.

Another possibility is to retain public ownership of existing facilities, but allow private investment (or public-private joint ventures) in new facilities. For example, a public agency might take bids for a private firm to design and build a new facility in return for an agreed price charged for the amount of water delivered, or other outputs or services produced.

**Current Situation.** MWD owns the regional water delivery infrastructure and makes investment decisions for the region. However, MWD is negotiating an agreement with the Cadiz Land Company (a private-sector firm) to store Colorado River supplies in its ground water basin. This might be defined as private development of infrastructure or a public-private venture.

## 6.2 OUTSOURCING AT PUBLIC AGENCIES

*How much of regional water supply activities should be outsourced?*

*aggressive  
outsourcing*

*outsource non-  
core competencies*

*keep most functions  
in-house*

Some studies have suggested that outsourcing can reduce the costs of performing activities such as facilities maintenance, personnel and payroll functions, and information systems management by 20-30 percent, and give the customer access to state-of-the-art service provision. A public agency might be able to achieve similar savings and performance improvements by outsourcing functions currently performed in-house. However, the process of selecting and bundling functions to outsource, selecting providers, designing contracts, developing performance metrics, and monitoring service provision can have a strong influence on the outcome. Inappropriately designed contracts or poor source selection can lead to lower performance. Therefore, even if aggressive outsourcing is pursued, an organization should retain personnel with the expertise to define the service to be performed, design an appropriate contract, and supervise the performance of the contractor.

Hiring outside contractors to perform seasonal or short-term activities may also help to avoid the costs of hiring and firing personnel when demand for staff has large swings over time. However, public sector agencies often recruit minorities, women, and individuals from low-income backgrounds more aggressively than private sector contractors do. Greater use of contractors might therefore reduce economic opportunities for these individuals. This problem could be addressed by setting requirements for the use of women- and minority-owned businesses in contracting or subcontracting.

Keeping functions in-house allows the organization to develop and maintain agency-specific knowledge and skills, and to have staff on hand to respond to emergencies. In addition, there may be some skills that cannot easily be obtained from external providers. However, keeping functions in-house also has risks. Internal service providers may not be subject to the same performance targets as external providers, and may not have access to state-of-the-art technology if their area of expertise lies outside the "core competencies" of the agency. The business management literature recommends that organizations identify their core competencies, i.e., functions in which they have a unique, strategic advantage, and to consider outsourcing other functions so that internal management can focus on the activities that are most important to the organization.

**Current Situation.** MWD has outsourced some functions. The increase in engineering expertise needed to design and build the Eastside Reservoir and other recent capital investment projects was met by outside contractors rather than by increasing internal staff. MWD's engineering department has a strategic plan to further reduce internal staff and to rely on contractors to a greater extent. MWD requires the use of minority- and women-owned businesses as subcontractors, and it is also committed to hiring a workforce representative of the population in its service areas.

### 6.3 BUSINESS DEVELOPMENT IN PUBLIC AGENCIES

*Should a public agency raise funds by selling technologies and expertise developed to serve member agencies?*

*establish profit-  
making subsidiaries*

*ancillary use of  
property*

*do not sell expertise  
developed at  
public expense*

Selling technologies or expertise could offset the cost of water and other services provided to member agencies and help a public agency retain employees with unique skills that are not utilized full-time on current activities. More aggressive business development activities could increase incentives to develop valuable new technologies that could benefit member agencies and other customers. However, entering into risky ventures could result in losses that would have to be subsidized by member agencies. It might not be appropriate for a publicly-funded agency to enter into competition to provide services already supplied by private firms. If an agency uses public funds to develop a technology that it then resells, it could be paid twice for the same work. This could create incentives to overinvest in technology development, as well as creating unfair competition with private sector firms, who have to use their own funds or repay those who finance the initial investment in technology development.

Developing new business areas could distract senior management and talented staff from their primary mission of providing water supplies to the region. Staff that became fully occupied with external business would not necessarily be available when they were needed internally. Selling information or technologies that were previously shared with other agencies could discourage these agencies from sharing the information that they develop.

On the other hand, a public agency might make no efforts to utilize assets, intellectual property, or expertise to raise additional funds. This might result in missed opportunities to offset costs to customers and to reduce water rates. A public agency might see its intellectual property be developed and sold by a commercial firm without realizing any external gains from its investment in research. Highly-trained staff members might leave the organization if they were not fully occupied by internal activities, or to commercialize technologies that they helped to develop.

An intermediate option would be to make an ancillary or auxiliary use of assets or property needed to fulfill an agency's primary missions, such as selling the right to install cellular telephone or television broadcast towers on land owned by the agency.

**Current Situation.** MWD established a Corporate Business Development Office in April 1997 to explore opportunities to sell additional services. These services are limited to those that 1) advance MWD's mission; 2) utilize unique capabilities or fill a need that MWD is uniquely positioned to meet (to avoid competition issues); 3) provide a net financial benefit, based on costs, and take advantage of existing resources and assets; 4) do not expose MWD or its member agencies to significant financial risk; and 5) are within MWD's authority. Revenues from any additional services sold will be used to maintain or reduce water rates and other charges.

## 7. GOVERNANCE OF THE REGIONAL WATER AGENCY

The governance issue has been on center stage for the last several months at MWD. Underlying this issue is discontent among some member agencies about various decisions that have been made and, equally important, about how they have been made. Some hope that if who makes MWD decisions and how they make them are changed, more agreeable policies will result.

As Dennis O'Conner suggests, it is premature to select a governance structure for an organization before its mission and functions have been determined.<sup>11</sup> Different missions and visions will suggest different governance structures. For example, the governance structure for an agency that is a regional resource manager ought to be more representative of local and regional interests than that for an agency that is a transmission utility. The governance structure of MWD should support and facilitate its mission and vision.

While we want to return to governance issues after there is more agreement on the major alternatives for MWD's missions and functions, it is useful to briefly highlight some of the key issues in this areas. This will help decisionmakers come to a common structure for addressing this issue as well as to raise any flags about the implications of certain missions and visions for governance structure.

The following four governance issues are examined:

- the appropriate level of governance for the regional water agency,
- board membership,
- the source of leadership within the organization, and
- voting weights.

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<sup>11</sup>O'Connor, Dennis E., *The Governance of the Metropolitan Water District of Southern California: An Overview of the Issues*, California Research Bureau, California State Library, August 1998.

## 7.1 LEVEL OF GOVERNMENT

*Where in the hierarchy of political organizations should the regional water agency sit?*

*local*

*regional*

*state*

At one end of the spectrum of possibilities the regional agency would be a creature of and subservient to the local retail and wholesale agencies in its service area. At the other end of the spectrum MWD could part of the state, reporting to the governor. Somewhere in between would be a regional agency with power over the retail and wholesale agencies.<sup>12</sup>

The question of where in the hierarchy of political organization the regional agency should sit is really a question about who it should be working for. If it is controlled by local agencies, it will tend to advocate local interests. The local agencies may take on regional perspectives, but there will be a tendency to come back to parochial interests. An agency governed by a regionally-elected board or water czar would place primary focus on the interests of Southern California as a whole, while a state agency would consider the interests of Southern California in context of those of other regions.

The regional water agency should be at the level of government that has the powers to carry out its mission. For example, if MWD is expected manage of "all the water" in the region, it may need power to enforce policies or resource plans within retail or other local agencies.

**Current Situation.** MWD is currently governed by member agencies with no power to direct water-related activities within its member agencies. Even though MWD works for local agencies, MWD Board members have a tradition of taking a regional perspective. This regional ethic has broken down at times, however. While MWD does not direct control of member agency water resource decisions, it does influence these decisions through pricing policies and incentive-based conservation and reclamation programs.

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<sup>12</sup>MWD could conceivably be part of the federal government, but this does not seem plausible for Southern California.

## 7.2 COMPOSITION OF REGIONAL BOARD

### *Who Should Sit on The Board of the Regional Agency?*

*final  
users*

*retail  
agencies*

*wholesale  
agencies*

*water  
suppliers*

The question of who should sit on the regional board is about how to make represent the interests of those most affected by its decisions. The range of interests potentially affected by its decisions run from end water users, to retailers and wholesalers, and finally to water suppliers.

Each group will likely have at least somewhat different interests. For example, if the regional agency were mainly a transmission utilities, water suppliers may be primarily interested in the cost and availability of aqueduct capacity. Final users would be presumably worried about the quality, cost, and reliability of the water the comes out of the tap. Water users may also have strong interest in social and political issues outside water production and supply—such as job opportunities or environmental quality. Because the interests of the various groups differ, choices on who is represented will likely have real effects on the policies of the regional agency.

**Current Situation.** Member agencies appoint the representatives to the MWD board. Member agencies include both retail and wholesale agencies, but in the case of wholesale agencies, the retail agencies in their service areas are not directly represented on the MWD board. End users and water suppliers are represented to the extent that the representatives from the member agencies understand and advocate their interests.

## 7.3 SOURCE OF LEADERSHIP AT THE REGIONAL AGENCY

### *What Should Be The Source of Leadership Within the Regional Agency?*

*staff driven*

*board driven*

Who drives policy within the regional organization has important implications for the qualifications and the time commitments required for the board and staff. At one extreme of the range of possibilities, the staff would take the lead in formulating and advocating policies. The board's role would be to provide loose oversight to make sure staff actions were

broadly consistent with the mission of the agency. At the other extreme, the board would take the lead in formulating policy—and the staff's role would be to narrowly implement it.

Staff can bring the experience and talent to bear on issues that comes with full-time, paid positions. A staff driven organization, on the other hand, runs the risk of creating a gap between what the organization is doing and what its constituents want.

Board driven approach requires that Board members have the time and resources needed to understand and address major water issues. This may call for full-time, paid positions with perhaps support staff. The board approach would be most effective when there is a board with a diverse set of skills and experience relevant to water policy. This might call for set of qualifications to be on the board,<sup>13</sup> and perhaps relatively long terms.

To make the board driven approach work, there must be an orderly, open (at least to the board) process for making decisions. This will enable board members to genuinely participate in the process.

**Current Situation.** Many MWD board member and other participants in water industry issues feel that the MWD is now a staff-driven organization. Some complain that there are no well-defined procedures for making decision and that decisions that are made are not properly documented. This makes it difficult for the board to fully participate in the process. MWD board member received little compensation for their time, also making it difficult for board members to take the time to come up to speed and participate in the decision-making process. In the past, directors often remained on the board for many years, but in there has been much more board turnover in recent years. There are not explicit qualifications to be on the board.

#### 7.4 VOTING WEIGHTS

##### *How should votes be weighted?*

There are a number of ways that voting weights on the regional agency, and they are not easily captured along a single continuum of options. Options include weights based on financial contribution to capital assets, water purchases, overall payments to the agency (including capital, O&M, and resource costs), reliance on the regional agency, and population. Further work is needed to sort through the implications of different approaches.

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<sup>13</sup>Slots might also be set aside for people with different sets of skills (engineers, economists, business managers, etc.)



We include this issue now as a reminder that it should be addressed when considering visions for the agency.

**Current Situation.** Each member agency's vote is proportional to the assessed valuation of property in that member agency relative to that in the entire MWD service area. These voting weight can differ substantially from weights using other methods.